53. (Original) The monitor of claim 38, wherein the electrodes are capacitively coupled.

54. (Original) The monitor of claim 38, wherein the memory further includes a nonvolatile storage location configured to receive a historical baseline ECG sample, wherein the baseline ECG sample is compared to the received ECG sample to detect the arrhythmia.

55
54. (Original) A method of long term monitoring a patient for an arrhythmia using a monitor having a first and second momentary contact electrode sized to contact a patient, and incorporating a detector circuit communicating with the first and second momentary contact electrode, the method comprising the steps of:

(a) touching at least one of the momentary contact electrodes;

(b) at no more than a predetermined interval, collecting from the patient an ECG sample when the patient touches the momentary contact electrodes, wherein the data is collected for a short period of time substantially less than a daily interval;

(c) detect by the detector circuit a likelihood that the patient is experiencing at least the arrhythmia;

(d) provide a first signal to the patient when the likelihood is above a predetermined threshold and otherwise providing to the patient a second output signal indicating that the likelihood is not above the predetermined threshold;

e) storing ECG data in a cascading memory having a plurality of memory storage locations;

f) assigning an age indicator to each stored ECG signal;

g) directing the stored ECG data into a memory slot currently storing ECG data having an oldest age indicator.

56
55. (Original) The method of claim 54, wherein step (a) further comprises sensing that the patient is touching at least one of the momentary contact electrodes.

57
56. (Original) The method of claim 54, wherein step (a) further comprises placing the contact electrodes in constant contact with the patient.

58
57. (Original) The method of claim 54, wherein step (a) further comprises placing one contact electrode in constant contact with the patient, wherein the patient

momentarily touches the other electrode, further comprising the step of sensing that the patient is touching both contact electrodes.

59. (Original) The method of claim 54 wherein step (b) is conducted in the morning after the patient wakes.

60. (Original) The method of claim 54 wherein the monitor includes a communication circuit and further including the step of:

(e) communicating of the recorded ECG signals to a remote site.

60. (Original) The method of claim 59, wherein step (e) further comprises communicating previously stored ECG signals to the remote site.

61. (Original) The method of claim 59, wherein the communication circuit further comprises a telephone line communication circuit.

63. (Original) The method of claim 54 wherein the monitor includes a clock circuit and further including the step of:

(e) providing a second output signal to the patient at daily intervals to remind the patient to grasp the momentary contact electrodes.

64. (Original) The method of claim 54 wherein the monitor includes a text display communicating with the atrial flutter detector circuit and further including the steps of:

(e) providing text messages instructing the patient in touching the first and second momentary contact electrodes and remaining in contact with the elements prior to generation of the output signal.

65. (Original) The method of claim 54, further comprising the step of storing baseline ECG data in nonvolatile memory and comparing the collected ECG signal to the stored baseline ECG data.

66. (Original) The method of claim 54, wherein step (d) further comprises providing the signals with at least one of a light, a vibrating mechanism, a display, and an audible alarm.

67. 66. (Original) The method of claim 54, wherein the momentary contact electrodes are capacitively coupled.

68. 67. (Original) The method of claim 54, wherein step (c) further comprises testing for the arrhythmia using more than one method.

69. 68. (Original) The method of claim 68. 67, wherein step (d) further comprises providing the first signal when any of the methods indicate the likelihood is above a predetermined threshold.

70. 69. (Original) The method of claim 54, further comprising the step of storing baseline ECG data, wherein step (c) further comprises comparing the collected data to the baseline data to determine the likelihood of a prolonged QT interval.

71. 70. (Original) The method of claim 54, whererin the arrhythmia comprises at least one of atrial flutter and atrial fibrillation.

72. 71. (Original) A method of long term monitoring a patient for an arrhythmia using a monitor having a first and second momentary contact electrode sized to contact a patient, and incorporating a detector circuit communicating with the first and second momentary contact electrode, the method comprising the steps of:

(a) touching at least one of the momentary contact electrodes;

(b) at no more than a predetermined interval, collecting from the patient an ECG sample when the patient touches the momentary contact electrodes, wherein the data is collected for a short period of time substantially less than a daily interval;

(c) determining at the detector circuit whether the patient is experiencing the arrhythmia, including:

(i) using a first detection method to determine a first likelihood that the patient is experiencing the arrhythmia;

(ii) using a second detection method to determine a second likelihood that the patient is experiencing the arrhythmia; and

(d) provide a first output signal to the patient when at least one of the two likelihoods is above a predetermined threshold and otherwise providing to the patient a second output signal indicating that the likelihood is not above the predetermined threshold.

73
72. (Original) The method as recited in claim 71, further comprising:

e) storing ECG data in a cascading memory having a plurality of memory storage locations;

f) assigning an age indicator to each stored ECG signal;

g) directing the stored ECG data into a memory slot currently storing ECG data having an oldest age indicator.

74
73. (Original) The method of claim 71, wherein step (a) further comprises sensing that the patient is touching at least one of the momentary contact electrodes.

75
74. (Original) The method of claim 71, wherein step (a) further comprises placing the contact electrodes in constant contact with the patient, wherein step (b) is performed at predetermined intervals.

76
75. (Original) The method of claim 71, wherein step (a) further comprises placing one contact electrode in constant contact with the patient, wherein the patient momentarily touches the other electrode, further comprising the step of sensing that the patient is touching both contact electrodes.

77
76. (Original) The method of claim 71 wherein step (b) is conducted in the morning after the patient wakes.

78
77. (Original) The method of claim 71 wherein the monitor includes a communication circuit and further including the step of:

(e) communicating of the recorded ECG signals to a remote site.

79
78. (Original) The method of claim 77, wherein step (e) further comprises communicating previously stored ECG signals to the remote site.

80
79. (Original) The method of claim 78, wherein the communication circuit further comprises a telephone line communication circuit.

81
80. (Original) The method of claim 71 wherein the monitor includes a clock circuit and further including the step of:

(e) providing a second output signal to the patient at daily intervals to remind the patient to grasp the momentary contact electrodes.

81. (Original) The method of claim 71 wherein the monitor includes a text display communicating with the detector circuit and further including the steps of:

(e) providing text messages instructing the patient in touching the first and second momentary contact electrodes and remaining in contact with the elements prior to generation of the output signal.

82. (Original) The method of claim 71, further comprising the step of storing baseline ECG data in nonvolatile memory and comparing the collected ECG signal to the stored baseline ECG data.

83. (Original) The method of claim 71, wherein step (d) further comprises providing the signals with at least one of a light, a vibrating mechanism, a display, and an audible alarm.

84. (Original) The method of claim 71, wherein the momentary contact electrodes are capacitively coupled.

85. (Original) The method of claim 71, further comprising the step of storing baseline ECG data, wherein step (c) further comprises comparing the collected data to the baseline data to determine the likelihood of a prolonged QT interval.

86. (Original) A method of long term monitoring a patient for an arrhythmia using a monitor having a plurality of contact electrode sized to contact a patient, and incorporating a detector circuit communicating with the electrodes, the method comprising the steps of:

(a) placing the contact electrodes in contact with the patient;

(b) collecting from the patient at least two channels of ECG data on a continuous basis;

(c) determining at the detector circuit whether the patient is experiencing the arrhythmia, including:

(i) using a first detection method on a first channel of data to determine a first likelihood that the patient is experiencing the arrhythmia;

(ii) using a second detection method on a second channel of data to determine a second likelihood that the patient is experiencing the arrhythmia; and

(d) provide a first output signal to the patient when at least one of the two

15   likelihoods is above a predetermined threshold and otherwise providing to the patient a

second output signal indicating that the likelihood is not above the predetermined

threshold.

87. (Original)  The method as recited in claim 86, further comprising selecting a

channel exhibiting a greatest R-R interval compared to the other channel.

88. (Original)  The method as recited in claim 87, wherein the first detection

method further comprises analyzing the R-R interval from the selected channel.

89. (Original)  The method as recited in claim 88, wherein the second detection

method is applied to the non-selected channel.

90. (Original)  The method as recited in claim 86, further comprising storing

recent ECG data in nonvolatile memory when at least one of the two likelihoods is above

the predetermined threshold.

91. (Original)  The method as recited in claim 86, further comprising storing

recent data in volatile memory upon an arrhythmatic patient symptom.

92. (New)  A method of long term monitoring a patient for a cardiac arrhythmia

using an arrhythmia detector having a first and second momentary contact electrode sized

to contact a portion of a patient's right and left hand, respectively, the method

comprising:

(a) sensing that the patient is touching at least one of the momentary contact

electrodes;

(b) at no more than a predetermined interval, collecting from the patient an ECG

sample when the patient touches the momentary contact electrodes, wherein the sample is

collected for a short period of time substantially less than a daily interval;

(c) detect a likelihood that the patient is experiencing an arrhythmia;

(d) provide a first output signal to the patient when the likelihood is above a

predetermined threshold and otherwise providing to the patient a second output signal

indicating that the likelihood is not above the predetermined threshold; and

(e) providing the ECG sample to a remote operator for review when the likelihood

is above the predetermined threshold.  ·

93. (Original) The method of claim 92 wherein step (b) is conducted in the morning after the patient wakes.

94. (Currently Amended) The method of claim 92 wherein the monitor includes a recording media, the method further comprising:

(d) recording the received ECG signals subsequent to the patient touching the first and second momentary contact electrodes.

95. (New) The method of claim 94 wherein the monitor includes a communication circuit, the method further comprising:

(f) communicating the recorded ECG signals to a remote site.

96. (New) The method of claim 95, wherein the communication circuit further comprises a telephone line communication circuit.

97. (New) The method of claim 93 wherein the monitor includes a clock circuit, the method further comprising

(f) providing a reminder signal to the patient at daily intervals to remind the patient to grasp the momentary contact electrodes.

98. (New) The method of claim 92 wherein the monitor includes a text display communicating with the detector circuit, the method further comprising:

(f) providing text messages instructing the patient to touch the first and second momentary contact electrodes and remain in contact with the elements prior to generation of the output signal.

99. (New) A method of long term monitoring a patient for a cardiac arrhythmia, the method comprising:

(a) touching at least one sensing contact at no more than a predetermined interval;

(b) collecting an ECG sample for a short period of time substantially less than a daily interval;

(c) determining whether the ECG sample indicates a likelihood of a predetermined cardiac arrhythmatic condition; and

(d) outputting the ECG sample to a remote operator if the likelihood exists.